United States General Accounting Office

GAO

Briefing Report to the Joint Economic Committee, U.S. Congress

November 1987

DEFENSE PROCUREMENT

Work Measurement Programs at Selected Contractor Locations

GAO/NSIAD-88-43BR

DTIC QUALITY INSPECTED 3

Accession Number: 1489

Publication Date: Nov 01, 1987

Title: Defense Procurement: Work Measurement Programs at Selected Contractor Locations

Corporate Author Or Publisher: U.S. General Accounting Office, GAO, Washington, DC 20548 Report Number: GAO/NSIAD-88-43BR

Descriptors, Keywords: Aircraft Weapon DoD Production Navy Air Force Implementation Methodology Command Allocation Missile Reentry Reduction Productivity Efficiency

Pages: 019

Cataloged Date: Oct 12, 1988

Document Type: HC

Number of Copies In Library: 000001

Record ID: 20405

GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-222744

November 4, 1987

The Honorable William Proxmire
Joint Economic Committee
Congress of the United States

Dear Senator Proxmire:

In response to your request, we reviewed the Department of Defense (DOD) work measurement program to determine whether

-- contractors were complying with program requirements,

-- the program has improved contractors' labor performance, and

-- program results have been used to estimate or negotiate labor hours used in contract pricing.

As requested, we are also providing information on the process DOD used in developing guidance for implementing the program.

We performed work at Textron's Avco and Northrop's Electronics divisions which produce components of the Peacekeeper Missile; Eaton Corporation's AIL Division which produces components for the B-1B aircraft; and Boeing Aerospace Company which produces the air launched cruise missile. The contractor locations, weapon systems, and contracts we reviewed, along with our objectives, scope, and methodology are included in appendix II.

BACKGROUND

The work measurement program is intended to improve productivity and efficiency in contractor industrial operations and reduce weapon systems costs by identifying and reducing excess manpower and continually improving production methods. Work measurement is a technique for collecting data on work hours and production of work units to determine the relationship between work performed and work hours expended. The expectation is that management will use the resulting data--the relationship of actual versus standard--to evaluate productivity for the early identification of potential

improvements in personnel planning, scheduling, manufacturing, budgeting, performance evaluation, methods improvements, and cost control.

FINDINGS IN BRIEF

The four contractor locations included in our review have not fully complied with the work measurement program requirements. The Air Force identified areas of noncompliance during periodic program reviews and rated all four contractors marginal or deficient in implementing program requirements. When deficiencies were identified, noncompliance reports were issued and corrective action plans obtained from the contractors.

Because of ambiguities in the military standard and guidance for implementing the program, contractors reported higher labor productivity than what actually occurred on the plant floor. While some contractors attributed improvements in their labor performance to the program, it is difficult to precisely quantify what effect the program had on the improvements.

Three contractors did not use work measurement data for contract pricing purposes. One contractor, however, used the data for developing contract proposals and proposed lower contract costs as a result.

In October 1986, the DOD Inspector General reported that the program was not implemented on a DOD-wide basis as intended. The Inspector General concluded that work measurement programs were valuable, cost effective, and should be used more widely by defense contractors. Although the work measurement program has been adopted as a DOD-wide program, it has been implemented primarily by the Air Force. The Army and Navy have used the program sparingly.

CONCLUSIONS

Experience has shown that excess labor costs and lost time can be identified where work measurement programs have been implemented and conscientiously pursued. We believe the work measurement program can contribute to improved contractor productivity and lower contract costs. The full benefits of

the program, however, will not be achieved without wider use of the program and greater contractor compliance with the program requirements. Program requirements need to be clarified to promote consistent reporting of plant-wide labor performance among contractors.

RECOMMENDATIONS

We recommend that the Secretary of Defense direct DOD personnel to:

-- Take actions to ensure wider use of the work measurement program and greater contractor compliance with program requirements.

-- Revise MIL-STD-1567A and related program guidance to clarify treatment of various labor hour components.

-- Revise MIL-STD-1567A and related program guidance to require uniform reporting of both operator efficiency and plant-wide labor performance.

- - - - -

As requested, we did not obtain official agency or contractor comments on a draft of this report. However, we discussed the results of our work with contractor officials and officials from the Office of the Assistant Secretary of Defense for Acquisition and Logistics, Air Force Systems Command, and Air Force Contract Management Division and included their comments where appropriate. Air Force officials generally agreed with the facts regarding implementation of the work measurement program at the selected contractor locations. Air Force officials were concerned that we criticized the only military service committed to the work measurement program. We recognize the Air Force is committed to implementing the program and that it has encouraged contractors to comply with program requirements. Our work focused on Air Force weapon system programs because they extensively used work measurement.

Unless you publicly announce its content earlier, we plan no further distribution of this report until 30 days from the date of the report. At that time we will send copies to the Secretary of Defense and the Commanders of the Air Force Systems Command and Air Force Contract Management Division.

Sincerely yours,

Frank C. Conahan

Frank C. Conahan
Assistant Comptroller General

Contents

ABBREVIATIONS

DOD	Department of Defense
IG	Inspector General
MIL-STD	Military Standard

APPENDIX I

DOD WORK MEASUREMENT PROGRAM

BACKGROUND

The work measurement program, initially established by the Air Force in 1975, was adopted by DOD in March 1983. The program is designed to improve productivity and efficiency in contractor industrial operations and reduce weapon systems costs. It applies to weapon systems costing more than $100 million and provides for (1) setting accurate labor standards,[1] (2) analyzing and reducing differences between labor standards and actual labor performance, (3) establishing programs for improving manufacturing operations and reducing standard labor hours, and (4) using work measurement data for pricing contracts. Program requirements are contained in Military Standard (MIL-STD) 1567A and related guidance.

Work measurement is a technique for collecting data on work hours and production of work units to determine the relationship between work performed and work hours expended. If properly implemented, management uses the resulting data--the relationship of actual versus standard--to evaluate productivity for the early identification of potential improvements in personnel planning, scheduling, manufacturing, budgeting, performance evaluation, methods improvements, and cost control.

Our prior review of the Air Force work measurement program

In 1980 we reviewed[2] the Air Force work measurement program to determine if improved productivity and efficiency was being achieved and if it was desirable to seek wider application and extend the program to other DOD major acquisition programs. We recommended program implementation in major acquisition contracts of all military services. In March 1983, DOD adopted the program agencywide and issued MIL-STD-1567A. Although DOD adopted the Air Force's program, a recent DOD Inspector General study shows that implementation by the Army and Navy has been limited.

---

[1]Labor standards are the number of hours it should take a qualified worker to perform a manufacturing task at a normal pace using a prescribed method.

[2]Military Standard on Work Measurement--A Way to Control Cost and Increase Productivity (PSAD-80-46, June 3, 1980).

APPENDIX I

DOD Inspector General's study of work measurement programs

The DOD Office of the Inspector General (IG) recently studied work measurement systems and engineered labor standards. The study, issued in October 1986, was aimed at

-- comparing commercial and defense industry use of work measurement systems and engineered labor standards,

-- determining the effectiveness of work measurement and standards in defense contracting and production,

-- evaluating costs and benefits, and

-- recommending a DOD-wide policy.

The IG concluded that work measurement systems and labor standards were valuable and cost effective and should be used more widely by defense contractors. The study team recommended a DOD-wide policy designed to ensure that (1) use of work measurement will be widespread, (2) work measurement systems be based on engineered standards, and (3) benefits flow not only to the contractor but also to the government.

The IG also concluded that the work measurement program will not be widely used unless it is required by a DOD acquisition policy. The team found that the Army and Navy do not have an acquisition policy requiring the use of the work measurement program in their contracts and the Air Force does. The study team also found that 159 Air Force contracts required a program compared to only 3 Army and 5 Navy contracts. In addition, the study team found that MIL-STD-1567A and the guidance for implementing the work measurement program needed clarification in many areas.

COMPLIANCE WITH PROGRAM REQUIREMENTS HAS BEEN MARGINAL

The four contractors we reviewed had not fully complied with work measurement program requirements. The Air Force identified areas of noncompliance during periodic program reviews and rated all four contractors marginal or deficient in implementing program requirements. When deficiencies were identified, noncompliance reports were issued and corrective action plans were obtained from the contractors.

APPENDIX I

Eaton Corporation (AIL Division)

The Air Force found that AIL was deficient in implementing work measurement program requirements. The company did not have procedures to (1) establish type I engineered labor standards,[3] (2) set and review methods improvements, cost-reduction goals, and labor performance objectives, and (3) integrate work measurement and methods improvements in other management systems, including cost estimating. AIL's B-1B contract required full implementation of the work measurement program by June 1985.

AIL attributes its compliance problems principally to the lack of know-how to develop a work measurement program. The company was not required to develop a program until it was required on the B-1B contract. AIL has since formed a group of industrial engineers and trained them in the requirements of the program.

Textron Inc. (Avco Systems)

The Air Force rated Avco's work measurement program as marginal, partly due to inadequate written procedures for variance analysis and subcontractor compliance. In addition, an August 1986 Avco internal review showed that only 10 percent of the type I labor standards had been established. Avco was to have standards for 85 percent of the factory labor by April 1986. The internal review showed that standards had not been established for several labor categories, or for a major part that would be manufactured in house. Also, changes in the design and manufacturing process invalidated some standards that had been established earlier.

Although the company submitted corrective action plans, an Air Force contract administration official informed us that the company had not made satisfactory progress towards complying with program requirements.

Northrop Corporation (Electronics Division)

Northrop's work measurement program for the Peacekeeper Inertial Measurement Unit was rated marginal by the Air Force in February 1986, primarily because the company did not use labor standards for pricing contracts. Company officials informed us that design

---

[3]Standards established using recognized techniques, such as time studies, standard data, or a predetermined time system to derive at least 90 percent of the normal time associated with the effort covered by the standard.

changes and late deliveries of drawings prevented Northrop from developing and using labor standards for contract pricing.

The Air Force also found that Northrop had not adequately identified major factors that contributed to nonproductive time and had not communicated internal audit results to appropriate management levels. The Air Force also noted the company's procedures for analyzing and reporting labor performance were inadequate.The company corrected the deficiencies and the Air Force contract administration office considered Northrop to be in compliance with program requirements.

Boeing Aerospace Company

Boeing's work measurement program was rated satisfactory by the Air Force in February 1985. However, in August 1985, the Air Force rated Boeing marginally satisfactory in (1) labor performance reporting, (2) analysis of variances from labor standards, (3) methods improvement program, and (4) use of labor standards for contract pricing. These matters had either been resolved or Boeing was in the process of taking corrective action at the time of our review.

For example, the Air Force criticized Boeing for not identifying the reasons that actual labor hours exceeded standards, including reasons for idle time. Boeing informed the Air Force that it would develop the capability to thoroughly document elements of variances. Also, the Air Force criticized Boeing for the lack of management support in using labor standards for estimating. While the company did not use labor standards on the contracts we reviewed, it was able to demonstrate to the Air Force's satisfaction that standards were used on more recent contract price proposals. As a result, the noncompliance status condition was removed.

CONTRACTOR LABOR PRODUCTIVITY LEVELS WERE OVERSTATED

Contractors' work measurement reports reflected higher productivity levels than what actually occurred on the plant floor. This was partly due to ambiguous and inconsistent requirements in MIL-STD-1567A and related guidance. For example, contractors can report labor productivity based on plant-wide

APPENDIX I

performance[4] or operator efficiency.[5] Higher performance is reported when operator efficiency is the measure of labor performance because various inefficient plant-wide operations are excluded. Also, plant-wide labor performance can vary significantly because program guidance is unclear on how labor associated with lost time or downtime, and adjustments for scrap and rework should be reported.

Overstated productivity levels did not adversely affect contract pricing because three of the four contractors did not use work measurement data for this purpose. However, when inefficient plant-wide operations are excluded from or inconsistently presented in productivity reports, the underlying causes for such conditions may not receive proper management attention. Accordingly, program objectives of increasing productivity through improved methods, procedures, and controls may not be fully achieved.

Avco Systems

Avco work measurement reports to the Peacekeeper Missile Program office conformed to program guidance but overstated labor performance because certain nonproductive labor elements were not reflected in the reports. For example, Avco charged downtime of 12 minutes or more to overhead rather than to direct manufacturing labor. Program guidance is unclear because it allows lost time or downtime to be included either in direct manufacturing labor or overhead. By excluding some lost time or downtime from direct manufacturing labor, Avco reported better labor performance than actually occurred. Such reporting could obscure a potential productivity problem.

Although Avco included unmeasured hours[6] in total manufacturing labor as provided for in program guidance, it also included an

---

[4]Plant-wide performance is a ratio of total manufacturing labor hours incurred in relation to the standard hours established for the operations.

[5]Operator efficiency is a ratio of manufacturing labor hours incurred on specific tasks the operator is accountable for in relation to the standard hours established.

[6]Unmeasured hours are operations or tasks without labor standards but which are candidates for measurement.

offsetting estimate of the number of standard hours for operations and tasks where labor standards had not been established. This procedure did not comply with program guidance and resulted in overstating labor performance.

An Avco official informed us that labor performance was overstated by 10 to 15 percent because of the reporting treatment of downtime and unmeasured hours. Avco planned to change its reporting practice to comply with Peacekeeper Missile Program office directions to include downtime and unmeasured hours in plant-wide labor performance reports.

Boeing Aerospace Company

Boeing's work measurement reports on the Air Launched Cruise Missile Program conformed to program guidance but overstated productivity levels because operator efficiency rather than plant-wide performance was reported. Boeing excluded rework, unmeasured hours, and downtime of an extended duration in reporting labor performance. Downtime of an extended duration was charged to overhead.

Northrop Electronics Division

Northrop work measurement reports included both operator efficiency and plant-wide performance. Internal company reports overstated plant-wide labor performance because labor expended on scrapped units or assemblies was not considered. However, Northrop made appropriate adjustments for scrapped items and accurately reported lower plant-wide labor performance to the Peacekeeper Missile Program office.

Program guidance does not address the labor hour adjustment for scrapped units or assemblies. Air Force contract administration officials at Northrop, as well as company officials, told us that the scrap adjustment would be made in its internal reports, consistent with the monthly reports to the program office.

AIL Division

AIL had not implemented a labor performance reporting system.

Peacekeeper Missile Program contractors

Avco and Northrop are Peacekeeper Missile Program contractors. Air Force officials responsible for managing the Peacekeeper Missile Program were concerned with the accuracy of work measurement reports submitted by its 14 contractors, particularly

regarding the various methods used to account for scrap, rework, and repair.

Program officials identified the following problems:

-- Eleven of 14 contractors did not make labor hour adjustments for scrapped units or assemblies.

-- Nine of 14 contractors excluded labor hours for some downtime.

These conditions caused the contractors to report more efficient plant-wide labor performance than actually occurred. As a result of these problems, the program office had each contractor submit work measurement reports in a consistent fashion.

WORK MEASUREMENT CONTRIBUTIONS TO IMPROVED PRODUCTIVITY AND LABOR EFFICIENCY

The work measurement program contributed to productivity improvements at Boeing and Northrop, although it was difficult to precisely quantify the effect of the program. Neither contractor was able to achieve the standard; however, they narrowed the "gap" between actual and standard labor hours. Avco had not achieved any appreciable improvements and AIL had not implemented a program.

While Boeing and Northrop improved their labor performance early, recent labor performance has remained relatively constant. At Northrop, there appears to be substantial room for further improvements since actual labor hours were significantly higher than the standard.

Northrop Electronics Division

Northrop's work measurement program contributed to the identification and resolution of problems with (1) parts shortages, (2) rework, and (3) labor inefficiencies. We found that weekly performance and variance analysis reporting helped to eliminate a parts shortage problem in the hybrid fabrication and assembly area. Northrop also implemented a process control system in March 1986--a method of identifying causes of component failures to minimize subsequent rework. Furthermore, Northrop decided to purchase rather than make some parts to increase machining capacity and minimize inefficiencies caused by bottlenecks at mills and lathes. Northrop reported to the Air

Force contract administration office that the program has resulted in a 5-percent labor hour improvement over normal learning curve projections.

Boeing Aerospace Company

Boeing officials did not attribute specific labor improvements to the work measurement program. They stated, however, that the program helped to control and reduce labor costs.

In June 1985, the Air Force reported that while the program was not the primary factor in reducing Air Launched Cruise Missile Program costs, it played a part along with production improvement programs, employee motivational campaigns, and strong program management. The program enabled managers to identify problems and take actions to improve labor performance using trend data in variance analysis reports.

Avco Systems

Avco officials could not quantify benefits of the work measurement program. They stated, however, that recent labor improvements were attributable to the program.

Avco's reported labor performance showed only slight improvement from October 1985 to September 1986. Further, Avco officials said that plant-wide performance factors were understated and should not be relied upon as a measure of labor performance because they (1) reflect less accurate labor standards than contractually required, (2) exclude downtime of 12 minutes or more, and (3) exclude labor hours not covered by standards.

USE OF WORK MEASUREMENT DATA FOR PRICING CONTRACTS

MIL-STD-1567A and related program guidance provides for contractor use of work measurement data and labor standards for contract cost estimating and for government use in contract price negotiations. Experience has shown that excess labor costs and lost time can be identified and reduced and improvements made where work measurement programs have been implemented and conscientiously pursued. In pricing and negotiating contracts, the quantification of anticipated labor improvements and processes should result in lower cost estimates and contract prices compared to the use of historical data which contains the effects of built-in inefficiencies.

The contractors generally did not use work measurement data for estimating labor hours in contract price proposals. Therefore, the "should cost" benefits anticipated from the work measurement program were not achieved. Should cost is a specialized form of analysis which identifies uneconomical and inefficient practices in contractor's management and operations; quantifies the cost effect for realistic contract pricing objectives; and seeks to achieve more economical and efficient contractor operations. Assuming that further improvements are possible, work measurement data can be used to propose labor hour estimates that are less than historical learning curve projections.

When the Air Force established the work measurement program in 1975, it did not require contractors to use work measurement data for estimating labor hours in contract proposals. However, when adopted as a DOD-wide program in 1983, it required that work measurement data be used in developing contract proposals. Because AIL and Boeing were under the earlier Air Force program, they were not required to use work measurement data for estimating labor hours in contract proposals.

Avco Systems

Avco used labor standards adjusted by industry performance factors and a learning curve to estimate labor hours for its Peacekeeper reentry system contract. Company officials said work measurement performance data was not used for estimating because it represented earlier preproduction historical labor hours.

Boeing Aerospace Company

Boeing estimated labor hours for its Air Launched Cruise Missile Program contract based on historical data and a learning curve projection. Boeing officials said that work measurement data was not used because:

-- The Air Launched Cruise Missile Program contracts were under the earlier Air Force MIL-STD-1567 program which did not require the use of labor standards for cost estimating.

-- Boeing estimating procedures specify the use of historical data when available in preference to labor standards.

The Air Force did not use a should cost approach in evaluating labor hour estimates. According to an Air Force proposal evaluation team member, the use of historical labor hours for cost estimating was considered appropriate because the Air

Launched Cruise Missile Program had achieved production stability.

AIL Division

AIL estimated labor hours for production lots III to V under its B-1B aircraft contract using type II labor standards[7] and performance factors based on earlier production experience adjusted for learning curve projections. AIL did not achieve a should cost pricing environment because the labor estimates were based on less accurate type II standards and historical data.

The Air Force did not use a should cost approach in evaluating the labor estimates. The Air Force established its negotiation objective using historical data and a learning curve projection. This technique produced a 12-percent reduction in shop and electrical assembly labor hours during contract negotiations.

Northrop Electronics Division

Northrop did not use work measurement data to estimate labor hours for the second Peacekeeper Inertial Measurement Unit production contract. However, for the subsequent contract price proposal, Northrop used work measurement data to propose significantly lower labor hours. Labor performance reporting required by the work measurement program also provided the Air Force fact-finding team information which allowed the team to question a portion of the company's proposed labor costs.

At the time Northrop prepared its contract proposal the company's labor performance was about four times the standard. However, using historical labor performance data adjusted for productivity improvements that would be in effect at the time of contract performance, the company proposed a significantly lower realization factor and labor hours. Northrop's proposal, in essence, anticipated the productivity improvements and efficiencies that would be in effect during contract performance. Thus, the company's proposal reflected the should cost benefits that can be achieved through the use of work measurement data.

Had Northrop used historical data and a typical 85-percent learning curve factor, we estimate that the company would have proposed substantially higher hours. We believe the lower

---

[7]Standards that do not meet the accuracy requirements of type I standards.

proposed labor hours were due, in part, to Northrop's use of work measurement data.

Using work measurement data, the Air Force fact-finding team questioned $596,000 in proposed labor costs. Northrop subsequently revised its price proposal and eliminated the questioned hours. Northrop also reduced its standard labor hour content by about 13 percent because it expected to run more optimal production lot sizes during contract performance.

DEVELOPMENT OF PROGRAM GUIDANCE

In a March 6, 1986, letter to the Assistant Secretary of Defense (Acquisition and Logistics), the Management Systems Deputy in the Office of the Assistant Secretary of the Air Force (Financial Management) commented on draft guidance for implementing the work measurement program. The Management Systems Deputy was concerned that the program's cost reduction and control features would be weakened if the guidance were issued. The Management Systems Deputy mentioned several points in the letter about how the guidance had been weakened by the Air Force Systems Command and industrial contractors.

The Office of the Secretary of Defense considered the concerns raised by the Management Systems Deputy and resolved several before the guidance was issued. For example, the provision to reconcile actual labor hours with payroll records was reinstated after it had been deleted from an earlier draft version of the guidance. Also, the provision permitting less precise work sampling techniques to set type I standards was revised to restrict its use to situations where accuracy and confidence levels could be demonstrated. Further, guidance on use of work measurement data during full-scale development was reiterated and the provision for only developing type II standards during this acquisition phase was deleted. While all of the views contained in the Management Systems Deputy's letter were not accepted, those that were adopted resulted in improved program guidance.

The Management Systems Deputy also questioned the process used to develop the guidance. The deputy asserted the guidance was jointly prepared by the Air Force Systems Command and industrial contractors, contrary to earlier plans which provided for a DOD working group to develop the guidance. The Office of the Secretary of Defense was responsible for coordinating industry comments while the Air Force Systems Command was to coordinate comments from DOD components. However, the Air Force Systems Command assumed a broader role by rewriting the draft guidance

based on views and comments obtained from both industry and DOD components. Also, DOD did not bring the working group back into the coordination process as originally planned.

The promulgated guidance contains less detailed instructions for implementing the work measurement program than the version drafted by the working group. This was due, in part, to the adoption of some industry views. For example, defense industry officials expressed concern with the level of detail required to document that operations analysis was made to support type I engineered standards. The detailed data items specified in the draft guidance were eliminated in favor of evidence that a cost-effective operations analysis was made. On the other hand, some industry views were not adopted. For example, industry expressed reservations with the use of labor standards for estimating and pricing. In this case, draft guidance was retained and no changes were made based on industry comments. In some cases, industry and DOD components suggested similar changes to the draft guidance to eliminate restrictive requirements or excessive procedural details.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objectives in reviewing DOD's work measurement program were to determine whether (1) productivity improvements or labor efficiencies materialized from the program, (2) lower labor hours were estimated or negotiated into contract prices as a result of benefits derived from the program and improved labor hour performance reporting, and (3) contractors were complying with program requirements. In addition, we collected information on concerns expressed about the process DOD used in developing guidance for implementing the program.

We reviewed contractors' policies and procedures, labor hour performance and variance analysis reports, methods improvement studies, contract price proposals and contract file documentation, and Air Force price negotiation memorandums, and surveillance reports on program implementation. We also held discussions with company industrial engineers and cost estimating officials, as well as Air Force contract administration office personnel. We reviewed DOD and Air Force documents on the process for developing program guidance. We discussed the results of our review with DOD and Air Force officials responsible for program management.

Table II.1 shows the contractor locations we visited. The selection was limited to programs managed by the Air Force--the service that established the program in 1975 and the service with the most extensive work measurement program experience. We excluded Army and Navy programs and our selection of Air Force programs was made on a judgmental basis.

Table II.1: Contractor Locations

Contractor	Weapon System	Contract/Request for Proposal Number
Eaton Corp., AIL Division, Deer Park, N.Y.	B-1B Aircraft--Radio Frequency-Surveillance/ Electromagnetic Countermeasures Subsystem	F33657-81-C-0215
Textron Inc., Avco Systems, Wilmington, Mass.	Peacekeeper Missile -- Reentry System	F04704-85-C-0100
Boeing Aerospace Co., Kent, Wash.	Air Launched Cruise Missile	F33657-83-C-2154
Northrop Corp., Electronics Division Hawthorne, Calif.	Peacekeeper Missile -- Inertial Measurement Unit	F04704-86-R-0027

APPENDIX II

Our review was performed from June 1986 to March 1987 in accordance with generally accepted government auditing standards.

(396621)